

Elizabeth River & Lower James River PCB TMDL

Technical Advisory Committee Kick-Off Meeting

May 11, 2011 & May 17, 2011

Mark Richards (DEQ CO): PCB TMDL development overview

Jian Shen (VIMS): TMDL development and modeling approach

All materials from the meetings are located at: <http://www.deq.virginia.gov/tmdl/pcb.html>

What is the cost of analysis and what is the availability of labs? There are currently no labs in Virginia that perform Method 1668. Depending on the lab, the analysis will cost approximately \$700-\$800. Samples can be batched to help reduce costs. The current monitoring guidance document as well as a list of approved labs can be found at <http://www.deq.virginia.gov/tmdl/pcb.html>.

How many labs can analyze to 0.00064 ug/L? There are several across the country, but none in Virginia. DEQ has a list of labs on the PCB TMDL website or contact Mark R. for details.

Will the labs who do the 1668 method be VLAP certified? Yes, the labs have been contacted and requested to seek certification.

What is the best way to get the data to CO? Correspondence with Mark R.

Will sampling protocols be discussed? That was not the intent of this meeting. Contact Mark R. and refer to the monitoring guidance.

How should stormwater samples be collected? Sometimes it can be difficult. The lab you choose will provide sampling containers. Refer to the PCB monitoring guidance for the methodology to be followed. Try to minimize additional contamination sources as much as possible. If you are having difficulty collecting the samples, speak with Mark R.

Is a WLA given facility-wide or given only to those outfalls sampled according to the sampling plan? The approach is to develop an existing PCB load based on the data provided and the WLA will be assigned on a case by case basis at facilities with multiple outfalls. The procedure will have to be developed.

There is a conflict with wanting to provide good data and the cost involved. Is there a chance DEQ would not accept the data? DEQ will accept data that has been analyzed by an approved lab which performs Method 1668 A, B, or C. the monitoring Guidance has been developed to standardize data collection. If a lab follows protocol the data will be accepted.

HRSD has been involved with developing the monitoring guidance and methodology. It is recommended that replicate samples should be collected. Also, be aware of anomalies in the data. These anomalies can happen during the extraction process of the samples. Labs can't explain why these differences occur.

If Method 1668 is not promulgated by EPA, will this slow or even stop the TMDL process? No, DEQ is in an agreement with EPA to continue the development of the TMDL.

From a permitted facility's perspective, why should data be collected now and not wait until the permit is reissued? The data being collected now is strictly on a voluntary basis. At this point, there is no permit requirement. However, data that is collected prior to the development of the TMDL will only lead to better PCB loading rates. Otherwise, data will have to be estimated and this tends to not be very realistic. The overall contributing loads will be impacted and ultimately may lead to a modification of the TMDL.

Will allotments to permitted facilities be based on data that is submitted? Data provided from the facilities will be used to calculate the baseline contributing load. Internal DEQ discussions will be held to determine how the submitted data will be viewed in the permits. Allotments will be available for TAC review as they are developed.

Will there be a sampling requirement in the permit? Yes, if a facility does not collect PCB data during the Source Assessment phase (currently on-going) of the TMDL development. The TMDL requirement will be part of a Special Condition of the permit.

Are there QA/QC protocols for Method 1668? Yes, there are acceptance criteria included within the methodology.

What is the status on QA/QC for Method 1668? The differences between Methods 1668 A, B, and C are not that significant although A and C have greater similarity. At the present time, DEQ will accept data that has been analyzed using any of those method versions (this eliminates the requirement for "the most current method" as stated in the guidance). One of the issues laboratories have with B is the acceptance criteria for some spiking surrogates allow a maximum recovery of 100%. If 101% of the analytes is recovered the data are invalid.

How are MS4s being considered and has DCR been involved with the TMDL? DEQ-CO has and will continue to be in correspondence with the HRPDC and localities. In the future, a work group will be formed to help work out the details. DCR is aware TMDL development is on-going.

How many samples will be required from an MS4? A work group will be formed to work out these details.

What happens if a facility is covered by a VPDES permit and falls within an MS4? Each component will be separate. For example, the point source load will be subtracted from the MS4 load.

What would be considered as known contaminated sites in an MS4 area? These would be sites that are currently going through remediation. Known sites are subtracted out of the WLA calculation for the MS4. Regulated industrial sites are also removed from the MS4 WLA.

At this point, what is required from the localities with MS4s? A workgroup will be formed to work out details. DCR will be invited to participate.

What is a rough timeframe until a draft TMDL report is developed? The anticipated finish date is end-2014. However, there are still several internal issues that need to be figured out way before that timeframe. The TAC will meet regularly throughout the development process as new data become available.

Referring to the VPDES WLA in the Roanoke PCB TMDL, can the Schedule of Compliance actually be met? The process calls for using adaptive management/BMPs/Pollutant Minimization Plan. The source(s) will have to be determined after getting the WLA, and then a clean-up plan is needed. EPA has, and will continue to support BMP based (i.e., non-numeric limits) WLA placed in the permit.

Is it certain that EPA will support no numeric limits in stormwater permits? A recent EPA memo stated that BMPs were not good enough and that all TMDLs require limits. EPA has and will continue to support BMP based (i.e., non-numeric limits) WLAs, specifically for PCB TMDLs.

What is being done with known contaminated sites? DEQ is working internally with the waste division to identify and compile a list of sites.

Is there any guidance on BMP components? What has been used for the Potomac and Roanoke? Currently, there is no approved guidance. It will be developed in the near future. The Delaware River PMP will be used as a guideline for development of the guidance.

This TMDL will deal with mass values and it doesn't seem practical to look at PCBs in loads. Are there any surrogate constituents that can be used? There are no other constituents to consider. The model will look at the PCB loads by back calculating from the amount that is in the water. The TMDL is to meet 0.00064 ug/L in the river and then determine the sources to be reduced.

How are the drinking water standard and in-stream PCB water quality standard related? Because of different consumption rates, the concentrations are figured differently.

How is the Load Allocation derived? The total allowable load is calculated first. Then, the WLA is derived from point source information. The LA is everything that is left over in the non-point source category, which can include atmospheric deposition and contaminated sites in unregulated areas.

How far will the air-shed extend in the atmospheric deposition study? The coverage of the airshed still needs to be figured out in more detail and will depend on the goal of the study.

How are federal facilities considered? Those with a VPDES permit have been included in the process and will be considered in the WLA contribution. If they have contaminated sites, these sources will be considered within the LA portion of the TMDL equation.

In the model, has a component been considered about the removal of fish from the system, therefore removing PCBs from the system? While this has been considered, it is just too difficult to simulate in the model.

It appears that the model for the tidal James and Elizabeth Rivers is much more complex than what would be in the Roanoke TMDL. What effect does the tidal influence have? The tidal component does make the model much more complex because of a circular effect and transport occurs well beyond a “discharge” point.

Is there a sedimentation factor in the model? Sedimentation varies as was found when measuring rates in the Chesapeake Bay. Resuspension will be accounted for in the transport model portion. Sensitivity tests will be run to get certainty and confidence.

Will the Margin of Safety be a percentage? Most likely because of the level of uncertainty. This will be a topic for discussion as the TMDL moves forward in its development.

Will the model account for any dredging activity? No, there is not a component in the model to address dredging. Basically, it can be treated as re-distribution when considering a large time period. Sensitivity tests will be performed.